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## **Summary of Cooperation**

### U.S./China Science and Technology Agreement (1979-Present):

The United States and China signed an agreement on Cooperation in Science and Technology in 1979. This agreement called for the establishment of the US/PRC S&T Joint Commission, which is co-chaired by the President's Science Advisor, Dr. John Gibbons, and his Chinese counterpart, Dr. Song Jian, Chairman, State Science and Technology Commission. Biannual Joint Commission meetings were held through 1987. The meeting planned for 1989 was cancelled due to Tiananmen Square. On May 22, 1991, the US and PRC Governments renewed the overall S&T Agreement, with an Intellectual Property Rights (IPR) Annex attached. The first US/PRC S&T Joint Commission Meeting since 1987 was held April 12, 1994.

#### Draft Protocol on Space Cooperation (1987):

- NASA and China's State Science and Technology Commission (SSTC) exchanged draft text of a Space Protocol in 1987. Further negotiation was put on hold pending the conclusion of the IPR Annex to the overall US/PRC Science and Technology Agreement. Although the IPR Annex to the S&T Agreement was signed in May 1991, NASA and the Chinese government have not resumed discussions on the Space Protocol. The Space Protocol was to serve as a lower-level agreement under the above U.S./China S&T Agreement.

#### Protocol on Aeronautics Cooperation (1986-1991):

- NASA signed a Protocol on Cooperation in Aeronautical Science and Technology with the Chinese Aeronautical Establishment (CAE) in 1983. The agreement did not go into effect until the IPR Annex to the protocol was signed in 1986. The agreement was signed by Dr. Jack Kerrebrock, NASA Associate Administrator for Aeronautics and Space Technology and Zhang Chi, Vice President of CAE. The protocol expired in 1991 with little cooperation ever taking place. The Aeronautics Protocol was a lower-level agreement under the U.S./China S&T Agreement.

While the Aeronautical Protocol was in effect, NASA and CAE held four symposia and agreed to conduct joint research in (1) fatigue and fracture mechanics and (2) wind tunnel wall interference correction study. The final meeting of fatigue and fracture mechanics effort was held in August 1989. NASA and CAE also developed a schedule and formats for text data exchange for the wind tunnel wall interference correction study.

#### Three Letter Agreements with China are currently in effect:

- November 18, 1992, Agreement between NASA and the Chinese Academy of Sciences concerning cooperation in the Dynamics of the Solid Earth (DOSE) program. This agreement provides for cooperative activities with and the inclusion of Chinese stations in the existing worldwide Global Positioning System (GPS), Very Long Baseline Interferometry (VLBI) and Satellite Ranging (SLR) networks.
- May 8, 1989, Agreement between NOAA and the State Meteorological Administration of China concerning cooperation in atmospheric science and technology. This agreement stipulates that NASA participates in the program in the same manner as NOAA. NASA's primary area of interest in this area is atmospheric chemistry. The Joint Working Group on Atmospheric Chemistry, which NASA has participated in, is meeting for the third time in August 1994 in China. At the first two meetings, each side agreed on a small number of areas in which cooperation should be pursued.
- June 1994, Agreement provides for Chinese participation in the Spaceborne Imaging Radar-C/X-Band Synthetic Aperture Radar (SIR-C/X-SAR) program. The first SIR-C/X-SAR flight was in April 1994, and a second flight took place in August 1994 on STS-68. Chinese researchers are among an international team of 49 science investigators that conducted the SIR-C/X-SAR experiments.

#### Additional Cooperation:

- In January 1992, a Chinese student experiment was flown aboard the Space Shuttle as part of the Get-Away-Special (GAS) small payload opportunity program. Two further Chinese student GAS experiments were selected in 1988 and were flown on STS-64 in September 1994 (they were pushed back in the manifest due the Challenger accident).
- .- The Chinese Academy of Sciences has recently reserved eight slots for GAS payload experiments, with the first due to be launched in late 1995.